

SYSTEM AND METHOD FOR INCREASING OUTPUT HORSEPOWER AND EFFICIENCY IN A MOTOR

ABSTRACT OF THE DISCLOSURE

A system and method are provided to increase the horsepower of an induction motor. One technique for increasing the horsepower of a motor is to connect the motor to a variable speed drive that is providing an output voltage and frequency greater than the standard line voltage and frequency. The connection of the variable speed drive to the induction motor enables the motor to be operated in constant flux or constant volts/Hz mode and provide a greater output horsepower. Another technique for increasing the horsepower of a motor is to use a dual voltage motor configured for lower voltage operation and then provide the motor with the corresponding voltage and frequency for higher voltage operation. The higher voltage and higher frequency can be provided by a variable speed drive with or without voltage boost. A variable speed drive without voltage boost, but with frequency boost, can be used in situations where the standard main voltage is greater than the lower voltage rating.